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ABSTRACT

Described in the paper by F. Hertlein, D. Konopasek, and S. Stile are the planning, implementation, and evaluation of a 3-day workshop to train professionals and paraprofessionals about mental retardation. An overview of workshop content (including sessions on normalization and behavior management) is given, and considerations in planning, delivery, and workshop evaluation are reviewed. Provided are workshop evaluation data, sample needs assessment forms, and excerpts from the participants' manual and from the criterion-referenced test used at the workshop. (CL)

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INTRODUCTION TO MENTAL RETARDATION: PLANNING, IMPLEMENTING AND EVALUATING TRAINING FOR COMMUNITY-BASED PROFESSIONALS AND PARAPROFESSIONALS

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Introduction

Over the past ten years services for our handicapped population have expanded greatly. During that decade a free and appropriate education has become a matter of public policy for every child (Abeson, Bollick, & Hass, 1975; Ross, 1975; Stainback, Stainback, & Maurer, 1976), and the principles of normalization (Nirje, 1969; Wolfensberger, 1972) have been operationalized into principles for the development and implementation of model community-based human service programs for retarded citizens.

Purpose of Paper

Increased stress upon parent involvement (Fredericks, Baldwin, & Grove, 1974; Lillie, & Trohanis, 1976; Hofmeister, & Reavis, 1974; Quick, Little, & Campbell, 1973) has accompanied the above noted expansion of educational services. Additionally, a variety of human service agencies are involved in other normalization efforts. One such agency is the Utah State Division of Family Services (DFS). This paper describes how training was planned, implemented and evaluated for a DFS subcontractor (Visiting Home Services) whose workers provided assistance (e.g., housekeeping, child care) to mentally handicapped individuals and their families.

Overview of DFS/VHS Training

Three one-day workshops were conducted for Utah VHS personnel in Logan, Salt Lake City and Provo. Each workshop was designed to focus on five major areas which had been identified through a prior needs assessment (see form contained in Appendix A). These areas and associated objectives were:

1. Introduction to Mental retardation.

   Objective: Participants will identify and discuss the current definition of mental retardation; its degrees and the potential of the retarded.

2. Attitudes toward the mentally retarded.

   Objective: Participants will identify typical misconceptions about mental retardation and discuss how stereotyped attitudes can be changed.

3. Normalization and the mentally retarded.

   Objective: Participants will identify and discuss principles of normalization and how these principles can be applied in their professional relations with the mentally retarded.

4. Introduction to task analysis.

   Objective: Participants will identify "complex" and "simple" behaviors and discuss the application of task analysis in training.

5. Introduction to behavior management.

Objective: Participants will identify and discuss the influence of four environmental consequences upon the behavior of individuals.

The workshop schedule and content were held constant for all three training sessions (see Appendix B). Each workshop was highly mediated--four 16mm film presentations, one slide/sound unit and numerous overhead transparencies were employed. Media were selected for current content and high audience appeal (e.g., Robert Mager's Who did what to whom? was used as the basis for the behavior management unit).

It was felt that group interaction was an important aspect of each workshop. Therefore, discussion was prompted whenever appropriate. Further, since the participants were heterogeneous with respect to educational attainment, the use of technical "jargon" was minimized. Group interaction was facilitated through use of a "workbook-type" participant's manual (Appendix C). This manual was designed to serve as a permanent record of the workshop content.

A criterion-referenced test (Appendix D) was developed for evaluation purposes. This instrument was based on major workshop objectives and used on a one group, pretest-posttest basis. Finally, each participant was requested to rate the overall workshop and various components on a Likert-type scale (Appendix E).

Evaluation data have been summarized in Tables 1 and 2. A t-test for correlated means was used to ascertain the degree of pretest to posttest growth. As shown in Table 1, all resulting t-scores were significant beyond the .001 level ($P < .001$).

Insert Table 1 about here

Table 2 presents a summary of participant ratings. In all but one instance, at least eighty-five percent of the responses were in the upper two cells of the rating scale.

Insert Table 2 about here

Planning a Training Workshop

For maximum impact, those receiving technical assistance and training should be involved in the planning that leads up to its delivery.

Planning Co-operatively with Workshop Participants

One of the major goals of in-service training is staff development. The probability of achieving this goal is often increased if the workshop director allows (or demands) sufficient time to obtain cooperative feedback during planning and development activities. Cooperative feedback involves systematic negotiation with representatives of the intended workshop target audience to help answer questions related to the design and delivery of training. Questions that are open for negotiation and varying opinions include:

1. What is to be accomplished?
2. How do you know when it is accomplished?
3. How can you best accomplish it?

Negotiation

Negotiation is characterized by:

1. Local participation. Randomly select a representative sample of prospective participants to involve in an exchange of ideas.
2. Personal meetings. Meetings can be helpful to uncover possible unexpected problems and/or concerns related to the proposed training.
3. Facilitation. Workshop planner must be willing to fade into the background and encourage others to demonstrate their competencies.

Including negotiation as a part of workshop planning requires time. However, the effort will often yield clearer training goals, more meaningful evaluation strategies, and more efficient use of the resources available to in-service trainers.

Preassessment: An Aid in Structuring the Workshop

The purpose of preassessment is to determine the skill and/or awareness level of a sample of prospective participants prior to training. Preassessment should not be confused with pre/posttesting, which is used to determine the impact of training. Preassessment is designed to yield information that will be helpful in the planning of training and (hopefully) improve the quality of the workshop. Preassessment should sample the following areas:

1. Previous exposure. Construct items that measure knowledge, performance and attitude related to workshop content.
2. Specific needs. Allow participants an opportunity to express personal needs and concerns. Common problems may be disclosed and used as examples during training.
3. Local environment. Determine if resources necessary for implementation of training objectives are available to participants.

4. Multiplier effect. The DCA Model (Appendix F) is a training strategy designed to facilitate spread-of-effect by training participants to serve as trainers.

Some Considerations in Delivery of Content

The following are some considerations in the delivery of workshop content:

1. Facilitator/Participant Manual. Develop a manual that allows participants to leave training with systematic notes and outline of content.
2. Modeling. Provide an abundance of demonstration (either live or film-mediated) and require participants to perform the modeled activities.
3. Sequencing of activities. Investigators have found that beginning training with an activity that demonstrates a solution to a common problem or need is an effective strategy for improving attention toward subsequent material.
4. Use of examples. Include a range of examples that demonstrate positive instances (what it is), negative instances (what it isn't), and irrelevant characteristics (what doesn't matter).

Evaluation: An Important Source of Information for Future Planning

Post workshop evaluation techniques should be designed and analyzed to yield useful information for future planning. Consideration of the following elements when designing evaluation items and instruments may result in a more productive workshop evaluation:

1. What are participants' reactions to facilities, personnel, resources, activities, etc.? These items may help identify and eliminate problems such as activities that are judged irrelevant or have little value for carry-over into the classroom.
2. What new competencies were acquired as a result of in-service training?
3. What is the frequency and quality with which participants exhibit the new competencies?
4. What barriers must be removed or resources acquired to make sure that the results of training can be implemented?
5. What evidence is available that documents a link between newly acquired competencies by participants and impact upon students?

The results of an evaluation can be both beneficial to you in your planning and as evidence to school boards, SEA's, and others that technical assistance and training do make a difference.

Workshop Evaluation

An evaluation component is essential if the effectiveness of a training program (e.g., a workshop) is to be demonstrated. In fact, with the current emphasis upon accountability, funding agencies are insisting upon including an evaluation design in submitted proposals.

What Should be Evaluated?

Ideally, the evaluation should answer the following questions:

1. How effective was the training?
2. How and where could training be improved?

Measuring Training Effectiveness

When participants are both pretested and posttested, one of the best statistical methods which can be used to analyze the effects of training is the t-test. This statistic is relatively easy to compute and can be used to determine the degree of difference between the pretest and posttest scores. The more statistically significant the results of the t-test are, the more confident you may be that any pretest to posttest growth was due to the training rather than chance factors.

In addition to measuring pretest and posttest growth, cost effectiveness data should be considered. An index of cost can be determined by simply dividing the

total cost of training by the number of trainees. Thus, seventy-one VHS workers were trained for $2,394.27 which included start-up costs. This equated to a cost of $32.45 per participant. Whether or not a specific per-participant cost is, in fact, cost-effective will depend on two major factors:

1. Whether the training could have been conducted via an alternative approach with similar results at less cost, or
2. Whether another training approach would yield more significant results at the same cost.

Improving Training Effectiveness

Although a statistical comparison of pre- and posttest performance is capable of identifying program weaknesses, it is not capable of identifying reasons for weakness in a way that leads to the formulation of possible solutions (Nathenson & Henderson, 1976). This problem may be addressed by administering an evaluation form to workshop participants following training. This form should allow the participants to evaluate all aspects of training, including individual training components, media, and perceived trainer characteristics (use of jargon, interest in presentation, etc.). The authors found that a Likert-type scale (Appendix E) was an effective format for the evaluation instrument. This scale forces participants to rate each evaluation

statement from one to five (with one indicating "low" or "disagree," and five indicating "high" or "agree"). The Likert-type scale was selected over an open-ended response format for two reasons. First, it takes less time to administer and, secondly, it is more amenable to data analysis.

Writing the Evaluation Report

The following are suggested elements of an evaluation report:

1. Introduction. This initial section of the report should provide information regarding (a) who was trained, (b) sources of funding, (c) who conducted the training, (d) facilities, and (e) training objectives.
2. Method. This section should present a detailed description of how the training was conducted. It should describe (a) workshop content, (b) the experimental design employed (if any), (c) how the training was to be evaluated and (d) statistical procedures used to analyze the results of training.
3. Results. The results section should provide an analysis of (a) statistical data including pretest to posttest growth, (b) participant evaluation data (e.g., Likert-scale

responses), and (c) cost-effectiveness data.

4. Discussion. The final section should "put it all together." In other words this is the appropriate place to make conclusions and recommendations based upon the results of training.

In addition to the four sections of the evaluation report described above, you may want to include an appendix. The appendix should include any information pertinent to the report such as a summary of evaluation data, copies of evaluation instruments or raw data.

Table 1

T-Tests for Correlated Means of Pre- and Posttest Scores

Location	Pretest $\bar{X}$	Posttest $\bar{X}$	n	t-score
Logan	5.45	11.15	20	8.80*
Salt Lake	6.63	10.63	19	10.00*
Provo	5.58	10.17	12	5.10*
Total	5.92	10.73	51	12.80*

* $p < .001$

Table 2

Summary of Participant Ratings of

Workshop Effectiveness

Statement	Rating 1	2	3	4	5
Interest in workshop				11	44
Value of workshop			2	19	33
Value of audio/visual materials				11	44
Value of participant's manual			2	11	41
Value in helping me work with MR			7	14	33
As a result of the workshop...					
Increased understanding of MR definition		1	7	22	33
Stereotypes/attitudes about MR have changed	1	2	10	15	19
Can employ normalization principles		1	3	12	35
Understanding of task analysis	1	1	5	20	25
Can employ principles of task analysis	1		4	10	37
Understand principles of behavior management	1		8	22	22
Can employ principles of behavior management		2	2	11	39

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Appendix A

Needs Assessment
Learning Objectives
and Arrangements Forms
(from Davis & McCallon, 1974)

NEEDS ASSESSMENT: COMPETENCY MODEL

Name: Group:

Competency Model for:

Desired (required) Competencies	Performance Assessment Scale		Needs		
	Inadequate	Adequate	Learning	#	Nonlearning
1.	(—) 3 2 1	(+) 1 2 3			
2.	3 2 1	1 2 3			
3.	3 2 1	1 2 3			
4.	3 2 1	1 2 3			
5.	3 2 1	1 2 3			
6.	3 2 1	1 2 3			
7.	3 2 1	1 2 3			
8.	3 2 1	1 2 3			
9.	3 2 1	1 2 3			
10.	3 2 1 (—)	1 2 3 (+)			

Directions: For each competency listed, circle the number that most accurately reflects your present level of performance. This is not an evaluation, but a tool to assist you in specifying your learning needs, so please be as honest as possible. Connect the circled numbers with solid lines. The pattern of these lines helps you see your strong and weak areas. For each negative number circled, describe in your own words what you think you need to learn to reach an adequate level of performance in that competency. If adequate performance, in your opinion, requires something in addition to what you will be learning, indicate this in the Nonlearning needs column. The column designated by (#) is for ranking your needs in priority order. Place a "1" by the need that is most important to you, a "2" by the next most important, etc.

GENERAL AND SPECIFIC LEARNING OBJECTIVES

Problem or Desired Competency:	Group:
Learning Needs:	
General Learning Objective (GLO):	
Specific Learning Objectives (SLO): SLO #1:	
SLO #2:	
SLO #3:	
SLO #4:	
SLO #5:	
SLO #6:	
SLO #7:	
SLO #8:	

ARRANGEMENTS

(Complete in pencil)

Workshop	Dates	
Detailed Arrangements		Check ✓
1. MATERIALS Problems		
2. STAFF Problems		
3. CONSULTANTS Problems		
4. PARTICIPANTS Problems		
5. STRUCTURE Problems		
6. AIDS Problems		

	Check ✓
7. FACILITY Problems	
8. ACCOMMODATIONS Problems	
9. FOOD & REFRESHMENTS Problems	
10. DATES Problems	
11. TRAVEL Problems	
12. PROMOTION Problems	

Appendix B

Workshop Schedule

Workshop Schedule

9:00 - 9:15	Pretest and Introduction
9:15 - 9:20	Introduction to film: "A World of the Right Size"
9:20 - 9:45	Film: "A World of the Right Size"
9:45 - 10:00	Discussion of film
10:00 - 10:05	Introduction to film: "They Call Me Names"
10:05 - 10:30	Film: "They Call Me Names"
10:30 - 10:45	Discussion of film
10:45 - 11:05	Break
11:05 - 11:10	Introduction to film: "Graduation"
11:10 - 11:35	Film: "Graduation"
11:35 - 12:00	Discussion of film
12:00 - 1:00	Lunch
1:00 - 1:15	Introduction to Task Analysis
1:15 - 2:00	Slide/sound presentation: Specifying Behaviors
2:00 - 2:30	Shoe tying exercise
2:30 - 2:45	Discussion of shoe tying exercise
2:45 - 3:15	Break
3:15 - 3:30	Introduction to behavior management: Principles of learning
3:30 - 4:15	Film: "Who Did What to Whom"
4:15 - 4:30	Application of learning principles
4:30 - 5:00	Posttest and evaluation

Appendix C

Excerpt from
Participant's Manual

Exercise 8

In each of these 10 groups of behaviors, identify the most COMPLEX BEHAVIOR by putting a B before it, then chain the simple behaviors together in the order in which they would be taught to achieve the COMPLEX BEHAVIOR. (Rather than rewriting everything, just number the behaviors in the order in which they would be taught.)

1. ____ positions the pitcher correctly above the glass
____ pours liquid into a glass without spilling
____ grasps the pitcher with a steady, firm hold
____ tips the pitcher forward allowing the liquid to pour out slowly

2. ____ grasp the handle of the hot water tap
____ when the water reaches the half-way mark, twist the faucet handle to shut off the water
____ turn the handle slowly until a moderate stream of hot water is flowing
____ fill the wash basin half full of hot water

3. ____ brush his teeth
____ grasp his toothbrush with the preferred hand
____ rinse the toothbrush in clean water
____ replace the toothbrush in its proper place
____ insert the toothbrush into his mouth

4. ____ push the button into the buttonhole
____ grasp the button firmly with the right hand
____ spread open the buttonhole with the thumb and fore-finger of the left hand
____ button the sweater

6. ____ washes hands
____ replaces soap in soap dish
____ rinses soap off hands
____ removes soap from soap dish
____ lathers hands with soap and water

7. ____ throws unclean edibles into the garbage
____ picks unclean edibles from the floor
____ sees unclean edibles on the floor
____ refuses to eat unclean edibles

8. ____ gathers up the parts of the game
____ takes proper care of his games
____ takes game from shelf where it is kept
____ handles the parts of the game carefully

9. ____ handles food properly in his mouth
____ closes lips as he removes the spoon
____ puts food all the way into his mouth
____ chews each bite until suitable for swallowing
____ swallows the food

5. ____ hold open the bottom of the shirt
____ slip one arm into appropriate armhole
____ slip other arm into other armhold
____ slip head into head opening
____ pull shirt bottom down to waist
____ put on shirt

10. ____ holds jacket open
____ puts second arm into other sleeve
____ puts on jacket unassisted
____ puts arm into correct sleeve
____ straightens jacket into buttoning (or zipping) position

Appendix D

Excerpt from
Criterion-Referenced
Test

Score [ ]

POSTTEST

Mental Retardation Training Workshop

Name _____

1. The American Association on Mental Deficiency and the President's Panel on Mental Retardation offer a two-dimensional definition of mental retardation. Briefly, these two dimensions are:

   a. _____

   b. _____

2. John is 26 years old. He has the mental age of a 10 year old. He can read and do simple arithmetic. He is able to live in the community by himself. Would you classify John as: (circle one)

   a. Mildly retarded

   b. Moderately retarded

   c. Severely retarded

   d. Profoundly retarded

3. Pete is 12 years old. He has the mental age of a 2 year old. He can speak a few simple words and has learned the daily routine. He will always need direction and supervision. Would you classify Pete as: (circle one)

   a. Mildly retarded

   b. Moderately retarded

   c. Severely retarded

   d. Profoundly retarded

4. Joan is 7 years old and is considered moderately mentally retarded. Her parents complain that she is rebellious and fails to progress. Their daily routine is to awaken Joan at six. Her mother picks out her clothes, dresses her, and places her in a chair with a clamp-on tray. Joan spends the remainder of the day in this chair. She eats and naps there. She is only taken out to go to the bathroom. At nine P.M. she is put to bed for the night.

   List 4 principles of normalization Joan's parents are violating.

   a. _____

   _____

   b. _____

   _____

   c. _____

   _____

   d. _____

   _____

5. Identify the most complex behavior from among the following:

   a. Rub towel between hands

   b. Take hold of towel

   c. Dry hands

   d. Spread fingers and dry between them

Appendix E

Excerpt from
Likert-type
Evaluation Form

EVALUATION FORM

Mental Retardation Training Workshop

1. I rate my degree of interest in the overall workshop as:

LOW | | | | | | HIGH

2. I rate the value received from the overall workshop as:

LOW | | | | | | HIGH

3. I rate the overall value of the audio/visual materials as:

LOW | | | | | | HIGH

4. I rate the informational value of the handout materials as:

LOW | | | | | | HIGH

5. I rate the degree to which the workshop has given me a better basis for working with the mentally retarded as:

LOW | | | | | HIGH

6. Rate the degree to which the following media have increased your understanding of mental retardation:

	LOW			HIGH
a. A World of the Right Size				
b. They Call Me Names				
c. Graduation				
d. Behavior (Complex & Simple Behaviors)				
e. Who Did What To Whom?				

Introduction to Mental Retardation

7. Due to the workshop, I rate the degree to which I understand the definition of mental retardation as:

LOW					HIGH

8. Due to the workshop, I rate my understanding of the degrees of mental retardation as:

LOW					HIGH

Attitudes Toward the Mentally Retarded

9. As a result of the workshop, I rate my awareness of the common misconceptions concerning the mentally retarded as:

LOW					HIGH

Appendix F

Dissemination/Change

Agent Model

The Dissemination/Change Agent (DCA) Model*

Stage 1: Initial letter mailed to a number of potential users announcing the training process and content (application included).

Stage 2: A screening letter and response form is sent in response to applicants. This letter includes specific information on training process, content area and self-selection of change agent teams (CAT's).

Stage 3: Self-identification of applying CAT's.

Stage 4: Selection of CAT's by the training agency.

Stage 5: Training of CAT's.

Stage 6: Development of training plans by CAT's.

Stage 7: Implementation of idea or content area in classrooms by individual CAT members.

Stage 8: Training of "star" teachers by CAT's.

Stage 9: Feedback or evaluation of CAT implementation and "star" training.

Stage 10: Spread-of-effect conference where each CAT presents its implementation and training experience.

* For additional information contact: Jackie Bolen, California Learning Resource Center, 1301 South Broadway, Suite 623, University of Southern California, Los Angeles, California 90015.

Appendix G

Additional Sources of
Information on Planning,
Implementing and Evaluating Workshops

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